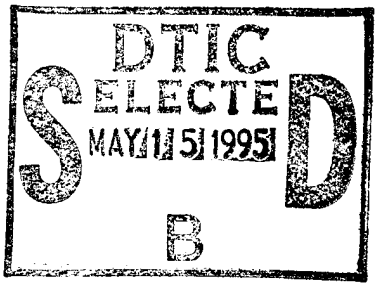
NAIC-ID(RS)T-0402-94

NATIONAL AIR INTELLIGENCE CENTER

ENGLAND DEVELOPS WORLD'S FASTEST OPTIC SWITCH
BREAKTHROUGH IN HIGH-SPEED COMMUNICATIONS

by

Sheng Li



HUMAN TRANSLATION

NAIC-ID(RS)T-0402-94 5 April 1995

MICROFICHE NR: 95C000169

ENGLAND DEVELOPS WORLD'S FASTEST OPTIC SWITCH
BREAKTHROUGH IN HIGH-SPEED COMMUNICATIONS

By: Sheng Li

English pages: 2

Source: Keji Ribao, Vol. 6, Nr. 12, 1992; pp. 3

Country of origin: China
Translated by: Leo Kanner Associates
F33657-88-D-2188
Requester: NAIC/TATE/Capt Joe Romero
Approved for public release; Distribution unlimited.

GRAPHICS DISCLAIMER

All figures, graphics, tables, equations, etc. merged into this translation were extracted from the best quality copy available.

ENGLAND DEVELOPS WORLD'S FASTEST OPTIC SWITCH
BREAKTHROUGH IN HIGH-SPEED COMMUNICATIONS

Li Sheng

England's Gelasige [Translator: phonetic spelling] University has successfully developed the world's fastest optical switching device, allowing for a major breakthrough in high-speed communications.

This switching device is called a non-linear direct coupler. It is a type of all-optical switch which operates with an extremely short strong laser pulse. The laser pulse is focused on a transistor waveguide and can change the optical properties of the transistor; thus by changing the laser pulse intensity, it is possible to change the light emitted by the transistor, thus changing the size of the switching pulse.

This switch was completed through cooperation between the electronics and electrical engineering departments. The testing was done by a long-time partner of this university, the Photoelectric and Laser Research Center at the University of Florida in the United States. They used a 10-ps laser pulse for testing and displayed this time marker instantaneously. The scientists on this research team and their American collaborators strongly believe that this is the world's fastest optical switch.

One other important characteristic of this switch is that it basically does not consume energy. Although this switch is still in the research stage, it is predicted that it will someday change the way people communicate.

DISTRIBUTION LIST

DISTRIBUTION DIRECT TO RECIPIENT

ORGANIZATION	MICROFICHE
B085 DIA/RTS-2FI	1
C509 BALLOC509 BALLISTIC RES LAB	1
C510 R&T LABS/AVEADCOM	1
C513 ARRADCOM	1
C535 AVRADCOM/TSARCOM	1
C539 TRASANA	1
Q592 FSTC	4
Q619 MSIC REDSTONE	1
Q008 NTIC	1
Q043 AFMIC-IS	1
E051 HQ USAF/INET	1
E404 AEDC/DOF	1
E408 AFWL	1
E410 AFDTC/IN	1
E429 SD/IND	1
P005 DOE/ISA/DDI	1
P050 CIA/OCR/ADD/SD	2
1051 AFTT/LDE	1
P090 NSA/CDB	1
2206 FSL	1

Microfiche Nbr: FTD95C000169
NAIC-ID(RS)T-0402-94